



## Features

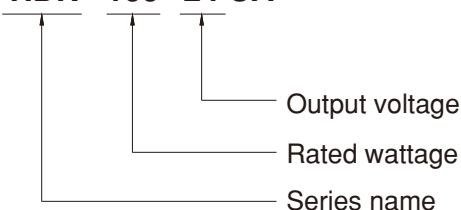
- Ultra slim design with 70mm(4SU) width
- Universal input 85~264VAC(277VAC operational)
- No load power consumption<0.3W
- Isolation class II
- Pass LPS (Limited power source)
- DC output voltage adjustable
- Protections : Short circuit / Overload / Over voltage
- Cooling by free air convection (working temperature:-30~+70°C)
- DIN rail TS-35/7.5 or 15 mountable
- Over voltage category III
- LED indicator for power on
- 3 years warranty

## Description

HDR-100 is one economical ultra slim 100W DIN rail power supply series, adapt to be installed on TS-35/7.5 or TS-35/15 mounting rails. The body is designed 70mm(4SU) in width, which allows space saving inside the cabinets. The entire series adopts the full range AC input from 85VAC to 264VAC(277VAC operational) and conforms to EN61000-3-2, the norm the European Union regulates for harmonic current. HDR-100 is designed with plastic housing that it can effectively prevent user from electric hazards. With working efficiency up to 89%, the entire series can operate at the ambient temperature between -30°C and 70°C under air convection. It is equipped with constant current mode for over-load protection, fitting various inductive or capacitive applications. The complete protection functions and relevant certificates for home automations and industrial control apparatus (IEC60950-1, UL508, UL60950-1, EN61558-2-16) make HDR-100 a very competitive power supply solution for household and industrial applications.

## Model Encoding

**HDR - 100 - 24 CA**



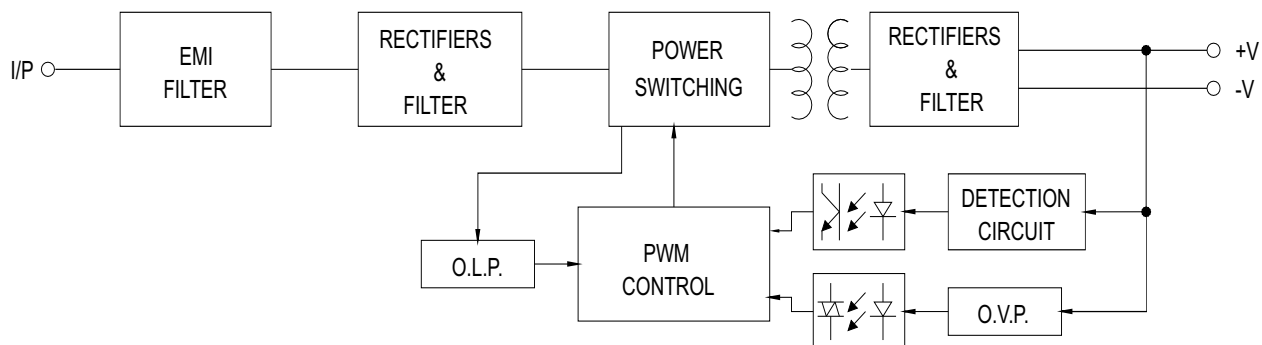
## Applications

- Household control system
- Building automation
- Industrial control system
- Factory automation
- Electro-mechanical apparatus

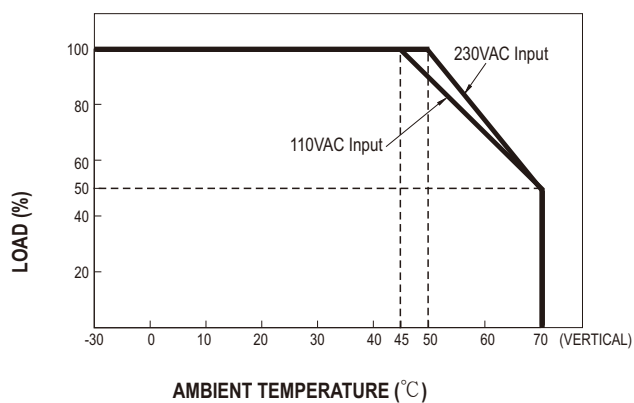
## SPECIFICATION

ORDER NO.			HDR-100-24CA		
MODEL			HDR-100-24		
OUTPUT	DC VOLTAGE		24V		
	RATED CURRENT		3.45A		
	CURRENT RANGE		0 ~ 3.45A		
	RATED POWER		82.8W		
	RIPPLE & NOISE (max.) Note.2		150mVp-p		
	VOLTAGE ADJ. RANGE	Pass LPS	24 ~ 25.5V		
		Non LPS	21.6 ~ 29V		
	VOLTAGE TOLERANCE Note.3		± 1.0%		
	LINE REGULATION		± 1.0%		
	LOAD REGULATION		± 1.0%		
	SETUP, RISE TIME		500ms, 60ms/230VAC      500ms, 60ms/115VAC at full load		
HOLD UP TIME (Typ.)		30ms/230VAC      12ms/115VAC at full load			
INPUT	VOLTAGE RANGE		85 ~ 264VAC (277VAC operational )      120 ~ 370VDC (390VDC operational )		
	FREQUENCY RANGE		47 ~ 63Hz		
	EFFICIENCY (Typ.)		89%		
	AC CURRENT (Typ.)		3A/115VAC      1.6A/230VAC		
	INRUSH CURRENT (Typ.)		COLD START 35A/115VAC      70A/230VAC		
PROTECTION	OVERLOAD      Note.4	3.52 ~ 3.83A			
		Protection type : Constant current limiting, recovers automatically after fault condition is removed			
	OVER VOLTAGE	30 ~ 36V			
Protection type : Shut down o/p voltage, re-power on to recover					
ENVIRONMENT	WORKING TEMP.		-30 ~ +70°C (Refer to "Derating Curve")		
	WORKING HUMIDITY		20 ~ 90% RH non-condensing		
	STORAGE TEMP., HUMIDITY		-40 ~ +85°C, 10 ~ 95% RH non-condensing		
	TEMP. COEFFICIENT		± 0.03%/°C (0 ~ 50°C) RH non-condensing		
	VIBRATION		10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6		
	OPERATING ALTITUDE		2000 meters		
	OVER VOLTAGE CATEGORY		III ; According to EN61558, EN50178, EN60664-1, EN62477-1 ; altitude up to 2000 meters		
SAFETY & EMC (Note 6)	SAFETY STANDARDS		UL60950-1, UL508, TUV EN61558-2-16, IEC60950-1, EAC TP TC 004, BSMI CNS14336-1 approved; Design refer to TUV EN60950-1		
	WITHSTAND VOLTAGE		I/P-O/P:4KVAC		
	ISOLATION RESISTANCE		I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH		
	EMC EMISSION	Parameter	Standard		Test Level / Note
		Conducted	EN55032(CISPR32), CNS13438		Class B
		Radiated	EN55032(CISPR32), CNS13438		Class B
		Harmonic Current (Note 5)	EN61000-3-2		Class A
		Voltage Flicker	EN61000-3-3		-----
	EMC IMMUNITY	EN55024, EN61000-6-2, EN61204-3			
		Parameter	Standard		Test Level /Note
		ESD	EN61000-4-2		Level 3, 8KV air; Level 2, 4KV contact, criteria A
		Radiated Susceptibility	EN61000-4-3		Level 3, criteria A
		EFT/Burest	EN61000-4-4		Level 3, criteria A
		Surge	EN61000-4-5		Level 4, 2KV/L-N, criteria A
		Conducted	EN61000-4-6		Level 3, criteria A
		Magnetic Field	EN61000-4-8		Level 4, criteria A
		Voltage Dips and interruptions	EN61000-4-11		>95% dip 0. 5 periods, 30% dip 25 periods, >95% interruptions 250 periods
OTHERS		MTBF		856.5K hrs min.      MIL-HDBK-217F (25°C)	
	DIMENSION		70*90*54.5mm (W*H*D)		
	PACKING		0.27Kg; 48pcs/14Kg/1.10CUFT		
NOTE					
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1μf & 47μf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Constant current limiting operation within 50% ~100% rated output voltage; protection type for short circuit is hiccup mode,it will recover automatically after fault condition is removed. 5. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a> ) 6.The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).					

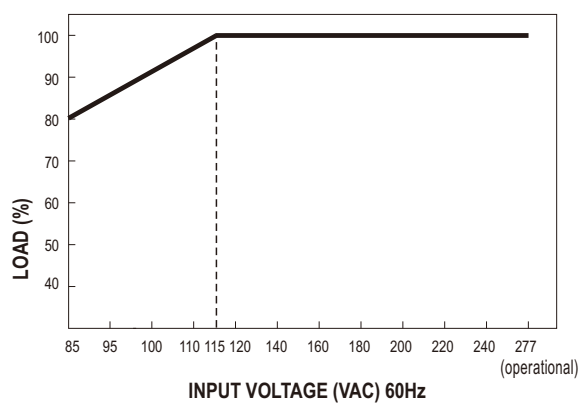
## ■ Block Diagram



## ■ Derating Curve VS Ambient Temperature

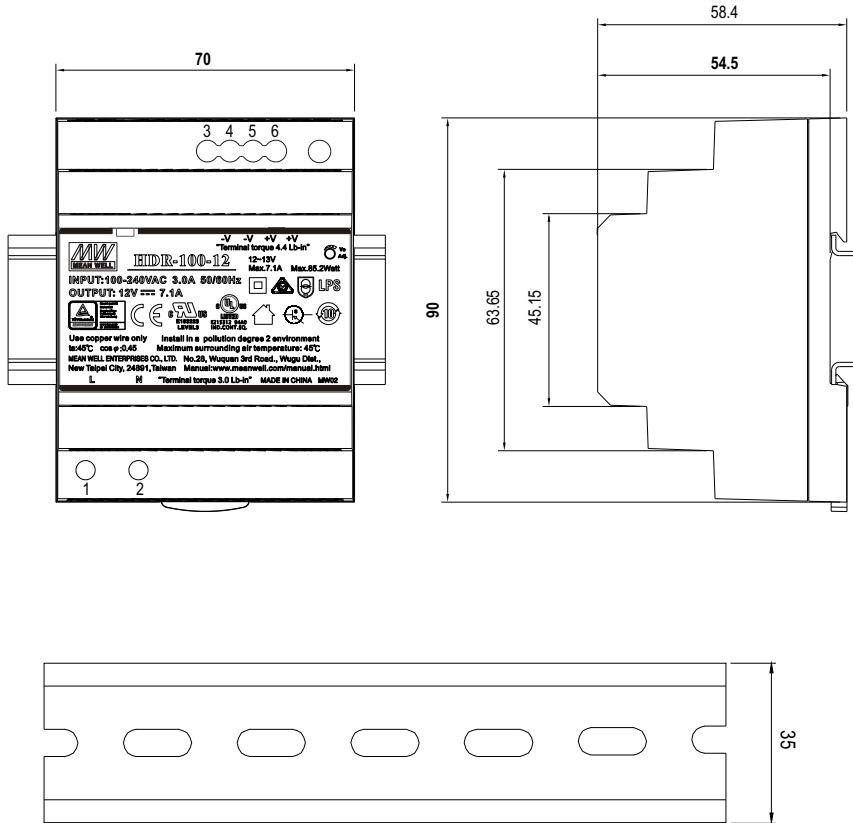


## ■ Output Derating VS Input Voltage



## Mechanical Specification

(Unit: mm , tolerance  $\pm 0.5\text{mm}$ )



ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15

Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	3,4	-V
2	AC/N	5,6	+V

## Installation Manual

Please refer to : <http://www.meanwell.com/manual.html>